

IN THE CLAIMS:

This listing of the claims replaces all prior versions and listings of the claims. Please amend claims 1, 5, 6, 9, 12 and 15, add claims 29-31, and cancel claims 16, 17, 20-22 and 25-28 as follows:

1           Claim 1. (currently amended) Method for generating persistent  
2    annotations of multimedia content, comprising one or more repetitions  
3    of the following steps:  
4           actively selecting examples of multimedia content to be annotated  
5    by a user, wherein the examples of multimedia content are selected  
6    based on at least one criterion for achieving a maximal disambiguation  
7    result such that only those examples which are most ambiguous are  
8    selected, the at least one criterion including a quantitative measure  
9    of confidence in a label;  
10           accepting input annotations from said user for said selected  
11    examples;  
12           propagating said input annotations to other instances of  
13    multimedia content; and  
14           storing said input annotations and said propagated annotations.

1           Claim 2. (original) The method of claim 1, wherein the step of  
2    actively selecting is performed using a selection technique selected  
3    from the group consisting of: deterministic and probabilistic.

Claims 3 and 4. (canceled)

1           Claim 5. (currently amended) The method of claim 1, wherein an  
2    optimization criterion for active selection includes ~~one or more~~  
3    ~~criteria selected from the group consisting of:~~ information measures  
4    ~~and confidence.~~

1           Claim 6. (currently amended) The method of claim 1, wherein the  
2    multimedia content comprises one or more types selected from the group  
3    consisting of: ~~images,~~ audio, video, ~~graphics, text, multimedia,~~ Web  
4    pages, time series data, surveillance data, sensor data, ~~relational~~  
5    ~~data,~~ and XML data.

1           Claim 7. (original) The method of claim 1, wherein the input  
2    annotations are created by a user with reference to a vocabulary.

1           Claim 8. (original) The method of claim 7, wherein the  
2   vocabulary contains one or more items selected from the group  
3   consisting of: terms, concepts, labels, and annotations.

1           Claim 9. (currently amended) The method of claim 1, wherein the  
2   process of creating input annotations by the user involves multimodal  
3   interaction with the user ~~using graphical, textual, and/or speech~~  
4   ~~interface.~~

1           Claim 10. (original) The method of claim 1, wherein the input  
2   annotations are created by means of steps selected from the group  
3   consisting of: creating new annotations, deleting existing annotations,  
4   rejecting proposed annotations, and modifying annotations.

1           Claim 11. (original) The method of claim 7, wherein the  
2   vocabulary is adaptively or dynamically organized and/or limited by the  
3   system or the user.

1           Claim 12. (currently amended) The method of claim 9, wherein the  
2   multimodal interaction involves one or more elements selected from the  
3   group consisting of: ~~speech recognition,~~ gaze detection, finger  
4   pointing, expression detection, and~~for~~ effective computing methods for  
5   sensing a user's state.

1           Claim 13. (original) The method of claim 1, wherein the  
2   determination of the propagation of annotations is made  
3   deterministically or probabilistically and on the use of models for  
4   each annotation or for joint annotations.

1           Claim 14. (previously presented) The method of claim 13, wherein  
2   the models are created or learned automatically or semi-automatically  
3   and/or are updated adaptively from interaction with the user.

1           Claim 15. (currently amended) The method of claim 13, wherein  
2   the models are based on nearest neighbor voting or variants, ~~parametric~~  
3   ~~or statistical models, expert systems, rule-based systems, or hybrid~~  
4   ~~techniques.~~

          Claims 16-22. (canceled)

1           Claim 23. (previously presented) The method of claim 1, wherein  
2   the at least one criterion includes an ambiguity level of the selected  
3   examples.

1           Claim 24. (previously presented) The method of claim 1, wherein  
2     the at least one criterion includes a confidence level of the selected  
3     examples, the confidence level being inversely proportional to a  
4     distance of a new feature of the selected examples from a separating  
5     hyperplane in an induced higher dimensional feature space.

          Claims 25-28. (canceled)

1           Claim 29. (new) The method of claim 13, wherein the models are  
2     based on expert systems.

1           Claim 30. (new) The method of claim 13, wherein the models are  
2     based on rule-based systems.

1           Claim 31. (new) The method of claim 13, wherein the models are  
2     based on hybrid techniques.